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Reply to Office Action of December 29,2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A data storage system that provides dynamic remapping of resources, the data storage system comprising:
 - a first network attached data storage device for storing one or more data storage resources connected to a raid controller
 - a storage area network hub coupled to the raid controller and in communication with the first network attached data storage device;
 - at least one client device configured to request data from the first network attached data storage device;
 - a first server in communication with the first network attached data storage device;
 - a second server in communication with the first network attached data storage device, wherein the first and second servers communicate with the first network attached storage device via a local network; and
 - dynamic session redirector circuitry in communication with at least one client device via a stateful protocol and in communication with both the first server and the second server, wherein the dynamic session redirector circuitry is configured to access the first network attached data storage device in response to the request from the at least one client device, the dynamic session redirector circuitry is configured to access the first network attached data storage device through either the first server or the second server, the dynamic session redirector

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determining which server through which to access the first data storage device based upon the operational status of the first and second servers.

2. (Original) A data storage system as in Claim 1 wherein the operational status comprises a failure status of the first and second servers.
3. (Original) A data storage system as in Claim 1 wherein the operational status comprises a prediction of the expected load for the first and second servers.
4. (Original) A data storage system as in Claim 1 wherein the operational status comprises a processing load being handled by the first and second servers.
5. (Original) A data storage system as in Claim 1 wherein the operational status comprises a measure of the memory utilization of the first and second servers.
6. (Previously Presented) A data storage system as in Claim 1 wherein the dynamic session redirector circuitry maintains a table listing the association between the first network attached data storage device and the server through which the dynamic session redirector circuitry accesses the first network attached data storage device, and wherein the dynamic session redirector circuitry rewrites the table when the first network attached data storage device is accessed through a different server.
7. (Currently Amended) A data storage system that provides dynamic remapping of resources, the data storage system comprising:
 - a first server;
 - a second server;
 - a plurality of network attached data storage devices which are accessible through the first server and the second server wherein the first and second servers

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communicate with the network attached data storage devices via a local network a storage area network hub and one or more raid controllers; and

a dynamic session redirector in communication with at least one client device via a stateful protocol and in communication with both the first server and the second server, wherein the dynamic session redirector sends requests for access to at least one of the plurality of network attached data storage devices in response to a request for access to data made to the dynamic session redirector by the at least one client device, and wherein the dynamic session redirector further comprises a table mapping at least one of the plurality of network attached data storage devices with at least one of the first server and second server, and the dynamic session redirector sends the request for access to the network attached data storage devices to one of the first server and second server based upon the mapping between the network attached data storage device being accessed and the server listed in the table, and wherein the dynamic session redirector may remap any of the plurality of network attached data storage devices with one of either the first server or second server based upon the status of the first and second servers.

8. (Previously Presented) A data storage system as in Claim 7 wherein the client is provided with a single system interface including the network attached data storage devices of the first and second server by the dynamic session redirector.

9. (Previously Presented) A data storage system for providing a single system interface for multiple network attached data storage devices to clients connecting to the data storage system across a network via a stateful network protocol, the system comprising:

a dynamic session redirector;

a plurality of servers connected via a communications network to the dynamic session redirector;

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a storage area network hub connected to the one or more servers;
one or more raid controllers connected to the storage area network hub,
wherein the one or more servers communicate with the one or more raid controllers
via the storage area network hub; and

a plurality of data storage devices connected to the one or more raid
controllers,

the dynamic session redirector configured to provide a single system
interface for accessing the plurality of data storage devices to a client connected to
the data storage system, the redirector configured to receive requests from a client
using a stateful protocol and to provide a first communications session between the
client and the redirector in response to a request from the client, the dynamic
session redirector sending requests for access to at least one of the plurality of
data storage devices in response to the requests from the client, and wherein the
dynamic session redirector further comprises a table mapping at least one of the
plurality of data storage devices with one of the plurality of servers, and the
dynamic session redirector sends the request for access to the data storage
devices to one of the plurality of servers based upon the mapping between the data
storage devices being accessed and the server listed in the table, and wherein the
dynamic session redirector may remap any of the plurality of data storage devices
to any of the plurality of servers based upon the status of the one or more servers.

10. (Previously Presented) A data storage system as in Claim 9 wherein the
redirector is further configured to send a request for access to the data storage
devices to a second of the plurality of servers based upon the mapping between
the data storage devices being accessed and the server listed in the table.

11. (Currently Amended) A data storage system that provides dynamic
association of network attached data storage devices which are made available to

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clients connecting to the data storage system across a network, the data storage system comprising:

a plurality of network attached data storage device means for storing of data;

a first server means for providing access to the plurality of network attached data storage device means;

a second server means for providing access to the plurality of storage device means, wherein the first and second server means communicate with the plurality of network attached data storage device means via ~~a local network~~ a storage area network hub;

one or more raid controller means connected to the storage area network hub, wherein the one or more servers communicate with the one or more raid controllers via the storage area network hub;

a redirector means for receiving requests from a client for access to one of the plurality of network attached data storage device means, and for providing an association between the plurality of network attached data storage device means and one of the first server means and second server means, the redirector means also accessing one of the plurality of network attached data storage device means through the server means associated with the network attached data storage device means, the redirector means changing the association between any of the plurality of network data storage device means and the first or second server means based upon the status of the first and second server means.

12. (Currently Amended) A method for accessing data on a plurality of network attached data storage devices comprising:

receiving a request for access to one of the plurality of network attached data storage devices;

looking up an association between the one of the network attached data storage devices and one of a plurality of servers for accessing the plurality of

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storage devices, wherein the plurality of servers communicate with the plurality of network attached data storage device via ~~a local network~~ a storage area network hub and one or more raid controllers;

accessing the one of the network attached data storage devices through the one of the plurality of servers;

determining the load on at least one of the plurality of servers; and

assigning new associations between the plurality of network attached data storage devices and the plurality of servers based upon the load on at least one of the plurality of servers.

13. (Previously Presented) A method as in Claim 12 wherein the step of accessing the one of the network attached data storage devices further comprises sending a first request to the one of the plurality of servers, and sending a second request to a second of the plurality of servers.

14. (Currently Amended) A method for accessing data on a plurality of network attached data storage devices comprising:

receiving a request for access to one of the plurality of network attached data storage devices;

looking up an association between the one of the network attached data storage devices and a plurality of servers for accessing the plurality of network attached data storage devices wherein the plurality of servers communicate with the plurality of network attached data storage devices via ~~a local network~~ a storage area network hub and one or more raid controllers;

sending a first request to a first of the plurality of servers for accessing the one of the network attached data storage devices;

sending a second request to a second of the plurality of servers for accessing the one of the network attached data storage devices;

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receiving a first response from the first server;
receiving a second response from the second server;
determining the load on at least one of the plurality of servers; and
assigning new associations between the plurality of network attached data storage devices and the plurality of servers based upon the load on at least one of the servers.

15. (Currently Amended) A method for balancing the load among a plurality of servers being used to access a plurality of network attached data storage devices, the method comprising:

maintaining a table of associations between a plurality of network attached data storage devices and a plurality of servers where at least one of the plurality of network attached data storage devices is assigned to one of the plurality of servers and wherein the plurality of servers communicate with the plurality of network attached data storage devices via a local network a storage area network hub and one or more raid controllers;

evaluating the load imposed upon the plurality of servers by the network attached data storage devices associated with the plurality of servers;

determining whether the load imposed by the plurality of network attached data storage devices may be more evenly distributed among the plurality of servers by altering the associations between the plurality of network attached data storage devices and the plurality of servers; and

updating the table of associations between the plurality of network attached data storage devices and the plurality of servers to reflect the more even distribution of load.